



Heat exposure in sugarcane workers in Costa Rica during the non-harvest season

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Abstract:

This observational pilot study was carried out at three sugarcane companies in Costa Rica. Its main objective was to determine the potential for heat stress conditions for workers in one sugarcane-growing region in Costa Rica during the maintenance (non-harvest) period. Wet bulb globe temperature (WBGT) variables were measured with a heat stress meter and threshold value limits and the Sweat Rate Indexes were calculated for each workplace. It was determined that workers in this study were in heat stress conditions. Costa Rica is likely to experience warmer temperatures and increased heat waves in the coming decades. It is therefore important to take action to decrease current and future heat-related risks for sugarcane workers in both harvest and non-harvest conditions and in all sugarcane growing regions in Costa Rica. It is also necessary to improve guidelines and occupational health standards for protecting worker health and productivity in the tropics.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Meteorological Factors, Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Rural, Tropical

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact:

Climate Change and Human Health Literature Portal

specification of health effect or disease related to climate change exposure

Injury, Other Health Impact

Other Health Impact: heat stress

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Workers

Other Vulnerable Population: sugarcane workers

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified